

Patent Claims

1. Vibration generator for seismic applications, comprising a housing in which coils, activated with AC current or electric pulses, are accommodated and which is coupled via a coupling element to the object to be investigated, characterized in that in the outer housing an inner housing is accommodated, that the outer housing supports two coil cores on opposing sides, on each of which one coil is displaceably supported, and that the two coils are connected with one another through an inner common housing, with the two coils being alternately activated with electric energy.
2. Vibration generator as claimed in claim 1, characterized in that between the coil cores and the coils is disposed a slide fit of a magnetically neutral material with good slide properties.
3. Vibration generator as claimed in claim 1, 2 [characterized in] that the slide fit is a brass sleeve.
4. Vibration generator as claimed in claim 1,

characterized in

that the inner housing on each of its two frontal faces has a hollow volume, which is encompassed by the coil and into which the coil cores project.

5. Vibration generator as claimed in claim 4,

characterized in

that the hollow volumes, each of which is encompassed by the coil and into which the coil cores project, is closed toward the inside by a bottom, which is a portion of the housing.

6. Vibration generator as claimed in claim 1,

characterized in

that at the frontal faces between the coil cores and the inner housing a spring is disposed.

7. Vibration generator as claimed in claim 1,

characterized in

that the inner housing comprises a volume for an insertable additional mass.

8. Vibration generator as claimed in claim 1,

characterized in

that the coils are fed from an electronic control device, which outputs to the coils

electric oscillations or pulses, which have opposite polarity.

9. Vibration generator as claimed in claim 1,

characterized in

that the outer and/or the inner housing is provided with an acceleration pickup.

10. Vibration generator as claimed in claim 1,

characterized in

that the coil cores are comprised of a magnetically soft metal alloy.

11. Vibration generator as claimed in claim 1,

characterized in

that the coil cores are provided with a venting channel, which extends from the core head volume into the outer housing.

12. Vibration generator as claimed in claim 1,

characterized in

that on the outer housing coupling elements are provided for the coupling to the object to be investigated.